Orion Crew Exploration Vehicle
Weekly Accomplishments

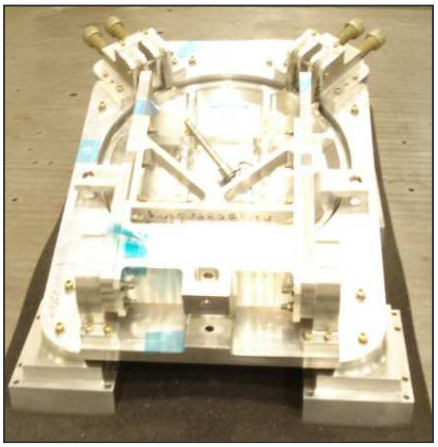
Week ending November 22, 2008

Countdown to Pad Abort-1 - 144 days

The Development Flight Instrumentation (DFI) installation in the Launch Abort System adapter cone for Pad Abort – 1 continues. Orbital has completed external instrumentation installation (Photo right). DFI sensors have been installed in the canard section. Jettison motor DFI installation at Aerojet is complete.

Pad Abort -1 avionics pallets were shipped from Lockheed Martin to Dryden Flight Research Center.

Pad Abort-1 chute stringer joint parts are complete and were shipped. Fabrication is currently milling Pad Abort-1 T-0 door arms. Electrical door assemblies are complete (Photo right). Thermal door assembly will be complete December 2.



As part of hardware testing for the Orion Ascent Abort – 1 (AA-1) crew module Reaction Control System (RCS), a composite over wrapped pressure vessel (COPV) used as a propellant tank was tested November 18 at Johnson Space Center's White Sands Test Facility. The RCS, designed and built by Glenn Research Center will be used to ensure proper orientation of the crew module simulator under the parachutes. The first test, conducted to qualify the COPV tanks under the AIAA S–081A standards, involved impacting the burst tank with 44.82 ft-lb as part of a worst case credible threat test.

Pressurized to failure, the tank exceeded the minimum failure value by 2,674 PSI, showing that the worst case credible impact did not compromise the structural integrity of the tank. Pre– and post–test photos are shown at left. The arrow indicates where the tank was damaged. The post burst picture shows that the failure did not initiate at the damage site.

The assembly of the Ascent Abort-1 (AA-1) Crew Module Simulator continues on schedule. Langley Research Center Fabrication has received AA-1 bulkhead items including the primary Hub, Primary Longeron Fittings (PLF), and Ring frame**.** AA-1 bulkhead items are undergoing quality assessment.

The Operations and Checkout (O&C) Facility Acceptance & Turnover team is actively planning for the near future transitioning of the O&C for Operations & Maintenance (O&M) after completion of the construction phase. Plans include the acceptance data package (ADP) documentation format structure to ensure the proper ADP format and content meet the applicable requirements and expectations.

A tour and overview of the O&C and production operations plans was provided for Mr. Bob Cabana, Kennedy Space Center Director.